

IMPACT OF AN ICE-DIMINISHED ARCTIC ON NAVAL AND MARITIME OPERATIONS SYMPOSIUM

**U.S. Navy Memorial & Naval Heritage Center
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Thank you for inviting me to speak at the symposium today. I believe this meeting is the first time that we have convened such a broad group of experts both from within and outside of the government to discuss the implications of an accessible Arctic Ocean. I am honored to be here today to speak to you today about such an important topic.

“Naval Operations in an Ice Free Arctic” was the name of a symposium held here in Washington D.C. in April of 2001. At that time the symposium was solely focused on the national and strategic issues associated with Naval missions and capabilities of an ice-diminished Arctic. I believe this year’s symposium has rightly been expanded to include broader discussions of maritime transportation and the implications of loss of sea ice on this activity as well.

An ice-diminished Arctic is important to the United States and particularly important to the State of Alaska. The United States has been an Arctic nation, with crucial interests in the Arctic, since the purchase of Alaska from Russia in 1867. Today there is increased attention on the Arctic, chiefly as a result of the dramatic changes that are occurring within this region.

Alaska is America’s Arctic which includes over 1000 miles of coastline along the Arctic Ocean. While the Arctic Ocean covers only 3% of

the earth's surface, it accounts for over 25% of the world's continental shelf. So when we are talking about the Arctic, the people of Alaska have a very strong interest.

There is more to the Arctic, however, than just the flora, fauna and climate. The "Arctic Human Development Report", initiated by the Arctic Council and completed in 2004, is an important source of information that should serve to remind us that as change is sweeping through the Arctic, there is a diverse group of Arctic residents and their needs must be considered in our discussions of Arctic issues.

This is a crucial issue in Alaska because of the Inupiat people that have lived off the land in this region for thousands of years. For the most part these people have continued to practice a subsistence lifestyle, while also integrating modern technology and convenience into their lives. And the changes that are occurring in the Arctic are being felt and expressed by the residents of the region. When I am visiting the villages in the northern part of the state, speaking with elders, I ask them about their experiences. They don't speak about Pacific Decadal Oscillation, or attempt to debunk the now infamous hockey stick theory. They tell me what they have personally observed over the years. Native whaling captains tell me that the ice pack is less stable, and that there is more open water requiring them to travel greater distances to hunt. The snow pack is coming later and melting earlier than in years past. Salmon are showing up in subsistence nets further north and in greater numbers across the Arctic. Their experiences and observations validate much of what the scientific studies have been indicating.

The heightened focus on the Arctic is primarily due to the impacts of climate change and the fact that these changes are occurring at an

unprecedented rate in this region. This makes the Arctic the most vital place to be studying how global climate change can affect the entire planet. There is also increased attention that the International Polar Year is bringing to the region. The International Polar Year, 2007-2008, is an intense scientific campaign to explore new frontiers in polar science, improve our understanding of the critical role these regions play in global context, form national and international partnerships between scientists and their governments and educate the public about the Polar Regions.

IPY is an multinational project, involving scientists from over 60 countries which was coordinated in the United States by the National Science Foundation. This is an unprecedented opportunity for the United States scientific community to foster international cooperation, engage in cutting edge research, gain new knowledge about the Arctic environment and initiate a sustained effort to assess the changes that are occurring in the Polar Regions. Of the 225 IPY projects, the United States plays a leadership role in 52 and is participating in 80% of the projects. One quarter of the projects involve Alaska and the Arctic.

The Arctic Climate Impact Assessment found that temperatures in the Arctic are rising faster than anywhere else on earth. The ACIA report also stated that the Arctic sea cover is undergoing an unprecedented transformation-sea ice thinning, a reduction in extent, and a reduction in the area of multi-year sea ice in the central Arctic Ocean. The ACIA sea ice simulations show increasing ice free areas in the Arctic coastal seas, which suggest an increase in Arctic marine access. One of their key findings was that the continuing reduction of sea ice is very likely to lengthen the navigation season and increase the marine access to the Arctic's natural

resources. They also found that seasonal opening of the Northern Sea Route is likely to make trans-arctic shipping during summer feasible within several decades.

The recent Intergovernmental Panel on Climate Change (IPCC) assessment showed that Arctic sea ice has shrunk approximately 20% since 1953 and concluded that the Arctic could be seasonally free of sea ice sometime between 2050 and the end of the century.

A recent study by scientists at the National Snow and Ice Data Center and the National Center for Atmospheric Research, using satellite and other observations, show the Arctic ice cover is retreating more rapidly than estimated by any of the computer models the IPCC used in preparing their assessment. These newly available data sets, which combine early aircraft and ship reports with more recent satellite measurements, show that the September ice, traditionally when it is at its minimum, has actually declined at a much faster rate. This recent report estimates that the loss of summertime sea ice could occur decades earlier than the IPCC assessment projected.

If this projected loss of sea ice occurs, it will open up the Northern Sea Route for transportation by non ice-strengthened vessels for an increasing number of days in the summer. We have been anticipating the effects of trade on the Northeast and Northwest Passage since explorers began their search for them almost 500 years ago. Routes through the Arctic will dramatically shorten shipping distances between existing commercial regions and trade centers and will be of primary interest for shipping between Europe and Asia. Via the Northern Sea Route, the distance between Yokohama and Hamburg, for example, is only 6900 miles, compared with 11, 500 miles via the Suez Canal.

In 2004, the Arctic Council requested the Protection of the Arctic Marine Environment working group to conduct a comprehensive Arctic marine shipping assessment. I know you will be getting an update on this assessment during the symposium and I know we all eagerly await the final report due out in 2009.

The prospect of increased shipping through the Arctic raises some important implications for the regional and global economy, for the coastal communities, and for marine resources.

The Administration is currently undergoing an interagency review of Arctic policy. I believe this is a opportune time to review the priorities and objectives of the United States Arctic policy. One area in which the United States has the capability to be a world leader is in the area of climate change adaptation. In Alaska, we have the facilities and the scientific expertise to carry on the research and lead this discussion.

One of the key areas I believe the United States government should invest is in replacing their aging Polar icebreaker fleet. Both the Polar Sea and Polar Star are reaching the end of their service lives and without a plan or funds for an extension of the program U.S. icebreaking capability is at risk. We need to initiate a needs assessment and design study as the first step.

Another area I believe we should be immediately investing in is an Integrated Arctic Observing Network. The National Academies report from 2006 outlined the potential scope, composition and implementation strategy for such a network. It is currently very difficult to thoroughly describe current conditions in the Arctic or understand the changes that are underway. Both the scientific community and residents of the Arctic would greatly

benefit from an international environmental observing network that would be built on and enhance existing national and international efforts. Other Arctic nations are in the developmental stage of their observing systems and the United States needs to be a part of this global network.

One of the key components of any U.S. policy must be to engage in international political cooperation across the Arctic. The first forum we must continue to be actively involved in is the Arctic Council. As the Arctic Council celebrates its ten year anniversary this year, the U.S. must focus and prioritize the cooperation with the eight countries that have territory in the Arctic and continue to be an active participant in the environmental, scientific, and political discussions and work that is ongoing.

The working groups of the Arctic Council have been very active and we are eagerly awaiting the release of their upcoming report, "The Oil and Gas assessment," in the near future. Norway has just taken over the chairmanship of the Council and one of their priorities is a review of the Arctic Council structure and discussion of whether the Arctic Council could be a forum to develop a binding legal regime for the Arctic. It will be crucial that the United States fully engage in this discussion about governance of the Arctic.

The other forum, in which I am a member, is the Standing Committee of Parliamentarians of the Arctic Region, or Arctic Parliamentarians. This parliamentary body was first established to support the establishment of the Arctic Council and now works actively to promote the work of the Council.

The Arctic is a relative newcomer in international cooperation but we have achieved much in a short time. I believe it has been the cooperation

between the indigenous peoples, the scientific community and the Arctic political organizations which may be the most important achievement in the Arctic cooperation and will be the key factor as we move forward. One of the most important developments in this cooperation is the successful way the indigenous people of the Arctic have worked collaboratively with the scientific community and have found their voice in sharing with the rest of the world their experiences in the Arctic and the impacts that these changes are having on their lives.

As we review and develop the nation's Arctic policy, I must advocate a priority of ratifying the Convention on the Law of the Sea Treaty. There are still some who do not see the point in joining with the rest of the world in ratifying the Treaty. They say that the U.S. already enjoys the benefits of the Treaty even though we are not a member and that by not becoming a party to the Treaty, we can pick and choose which sections we abide by, while not subjecting our actions to international review. But I believe it is very important for the United States to be a party to this Treaty and be a player in the process, rather than an outsider hoping our interests are not damaged. Accession to the Convention would give current and future administrations both enhanced credibility and leverage in calling upon other nations to meet Convention responsibilities.

One of the major issues of potential impact on Alaska is in making a claim for an Extended Continental Shelf. Russia submitted a claim in 2002 that would grant them 45% of the Arctic Ocean's bottom resources. If the United States were to become a party to the treaty, the U.S. stands to lay claim to an area in the Arctic of about 45,000 square kilometers-or approximately the size of California. But if we do not become party to the Treaty, our opportunity to make this claim, and have the international

community respect it, diminishes considerably-as does our ability to prevent claims like Russia's from coming to fruition. That would be a negligent forfeiture of valuable oil, gas, and mineral deposits that may be found in the Arctic. According to the U.S. Geological Survey, the Arctic may hold approximately 25% of the undiscovered petroleum resources and 13% of the proven.

This symposium brings an outstanding field of experts together to discuss the potential impacts of an accessible Arctic Ocean. While I hope the conference helps answer many of the questions that have arisen, I will add to those some of my own and some of the questions that are crucial to the residents of Alaska as we look ahead to an ice-diminished Arctic:

- will it make subsistence resources more or less vulnerable?
- Will it expand our fisheries?
- Will it make our natural resource wealth more economic and competitive in the world market?
- How can we ensure maximum protection for the environment?
- What will we need for shipping safety, navigation and search and rescue?
- What role will Alaska and America play in the new avenues of shipping and global commerce and what can we do to prepare?

A new Arctic Ocean will require enhanced environmental protection and marine safety measures. Domestic and international legislation and international guidelines may be

required but must balance freedom of navigation interests with security, safety and environmental policies. We must find the balance between to allow for commercial exploitation of the natural resources and protection for the environment.

Maritime activities relating to the transportation of goods, oil and gas, tourism and research will surely increase as the marine access to the Arctic Ocean increases. This represents perhaps the greatest challenge and need for international cooperation.

I look forward to the results of this symposium and I sincerely hope that these next three days are productive and informative. The Arctic is unquestionably unique and the projections of an ice-diminished Arctic have profound implications for this region, its ecology, environment and people. How we address and adapt to these changes is truly the challenge and opportunity that lies ahead. Thank you for the opportunity to address the symposium and I wish you all the best.